

State of Washington
REPORT OF EXAMINATION
FOR WATER RIGHT APPLICATION

File No. G2-29053
WAC Doc ID: 2222172

PRIORITY DATE
May 13, 1994

APPLICATION NUMBER
G2-29053

MAILING ADDRESS
Metropolitan Park District of Tacoma
4702 South 19th Street
Tacoma, WA 98405

SITE ADDRESS (IF DIFFERENT)
Northwest Trek
11610 Trek Drive East
Eatonville, WA 98328

Quantity Authorized for Withdrawal or Diversion

DIVERSION RATE	UNITS	ANNUAL QUANTITY (AF/YR)
80	gpm	3

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (MM/DD)
	ADDITIVE	NON-ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Industrial/Commercial	80		gpm	3		01/01-12/31

Source Location

WATERBODY	TRIBUTARY TO	COUNTY	WATER RESOURCE INVENTORY AREA
Well	N/A	Pierce	11

SOURCE FACILITY/DEVICE	PARCEL	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Well 2	0417341000	17	4E	34	SE NE	46.916914	-122.277097

Datum: WGS84

Place of Use (See Map, Attachment 1)

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

Area served by Northwest Trek Water System, located within the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ AND the N $\frac{1}{2}$ of the NE $\frac{1}{4}$ of the SE $\frac{1}{4}$ in Section 34, T.17N, R.4EWM, AND

The SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ AND the W $\frac{1}{2}$ of the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ and the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of the SW $\frac{1}{4}$ in Section 35, T.17N, R.4EWM

Proposed Works

Well 2 - a 6-inch well completed at a depth of 292 feet

REPORT OF EXAMINATION

Development Schedule

BEGIN PROJECT

Started

COMPLETE PROJECT

Completed

PUT WATER TO FULL USE

September 1, 2018

Measurement of Water Use

- | | |
|---|--------------------------------------|
| • How often must water use be measured? | Monthly |
| • How often must water use data be reported to Ecology? | Annually (Jan 31) |
| • What volume should be reported? | Total Annual Volume |
| • What rate should be reported? | Annual Peak Rate of Withdrawal (gpm) |

Provisions

Multiple Rights

Withdrawals from Well 2 are also authorized by GWC G2-21966. Withdrawals from Well 2 must be managed so that the combined instantaneous amount pumped under both water rights does not exceed 100 gpm.

Water Budget Neutral Limited

This water right requires 3 acre-feet to be discharged to Horseshoe Lake. The water right holder is required to document the volume of water amount of discharged to Horseshoe Lake and report annual volumes to Ecology at the same time water use is reported. This right cannot be used for a more consumptive purpose.

Measurements, Monitoring, Metering and Reporting

An approved measuring device shall be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use," WAC 173-173, which describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Southwest Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Southwest Regional Office for forms to submit your water use data.

Proof of Appropriation

The water right holder shall file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the permit. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times to the project location, and to inspect at reasonable times records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose(s) of use are beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. G2-29053, subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearing Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).



To appeal you must do the following within 30 days of the date of receipt of the Order.

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 111 Israel RD SW STE 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Signed at Olympia, Washington, this 19th day of October 2015.

Michael J. Gallagher, Section Manager
Water Resources Program/SWRO
Department of Ecology

BACKGROUND

On May 13, 1994, the **Metropolitan Park Department of Tacoma**, on behalf of Northwest Trek (NW Trek), filed an *Application for Water Right Permit* with the State Department of Ecology (Ecology). The application requested an instantaneous withdrawal rate (Qi) of 100 gallons per minute (gpm) and an annual quantity (Qa) of 60 acre-feet per year (af/yr). Subsequent to the filing, NW Trek determined that they had miscalculated their water demands and reduced their request to include only the additional water they need to supply several outdoor exhibits.

Table 1. Summary of Application No. G2-29053

Attributes	Proposed
Applicant	Metropolitan Park Department of Tacoma
Application Received	May 13, 1994
Instantaneous Quantity	100 gpm (reduced to 80 gpm to reflect second water right)
Source	Well 2
Purpose of Use	Industrial/Commercial
Period of Use	Year-round as needed
Place of Use	Area served by Northwest Trek Water System located within the North $\frac{3}{4}$ of the E $\frac{1}{4}$ of Section 34, T. 17 N., R. 4 E.W.M.

This application has been processed under Ecology's Cost Reimbursement Program. Pacific Groundwater Group (PGG) prepared this report of examination under direct contract to the applicant Metropolitan Park Department of Tacoma, with Ecology's review.

PGG attended a site visit and reviewed available documents pertaining to this and other related *Applications for Water Right*, including hydrogeologic and well construction reports, historical water use, stream flow conditions, and standing of existing rights.

Under the provisions of RCW 90.03.290 and 90.44, a water right may be issued upon findings that water is available for appropriation for a beneficial use, and that the appropriation will not impair existing rights or be detrimental to the public welfare. In accordance with these provisions, I recommend issuance of Permit G2-29053.

LEGAL REQUIREMENTS FOR APPLICATION PROCESSING

The following requirements must be met prior to processing a water-right application.

Public Notice

A public notice of the proposed appropriation was published in the Eatonville Dispatch on July 1, and 8, 2015. No protests were received as a result of this notice.

State Environmental Policy Act (SEPA)

A groundwater right application is subject to a SEPA threshold determination (i.e., an evaluation of whether there are likely to be significant adverse environmental impacts) if one of the following conditions is met.

- It is an application for more than 2,250 gpm
- It is an application that, in combination with other water right applications for the same project, collectively exceeds the amount above
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA)
- It is part of a series of exempt actions that, together, trigger the need to make a threshold determination, as defined under WAC 197-11-305

None of these situations apply to this application. Accordingly, the subject application is categorically exempt under SEPA (WAC 197-11-305 and WAC 197-11-800(4)).

Water Resources Statutes and Case Law

Under the provisions of RCW 90.03.290 and 90.44.050, a water right shall be issued upon findings that water is available for appropriation for a beneficial use and that the appropriation, as proposed in the application, will not impair existing rights or be detrimental to the public welfare.

INVESTIGATION

Evaluation of this application included, but was not limited to, research and/or review of the following:

- Walters, K. L., and Kimmel, G. E., 1968. *Ground-water occurrence and stratigraphy of unconsolidated deposits, central Pierce County, Washington*. Water Supply Bulletin No. 22, Washington Dept. of Water Resources, Olympia.
- Rongey/Associates (2004) *Hydraulics of Horseshoe Lakes Well Water Supply*. Project Memorandum to Chip Heinz, Northwest Trek, Sept. 2.
- Robinson, Noble, 1983, "Northwest Trek Supplementary Water Supply Well Construction Report," March.
- Northwest Trek's 2014 Water System Plan, Prepared by James J. Morgan P.E.
- Washington State Department of Ecology records of surface and groundwater rights and claims in the vicinity of the subject production wells.
<https://fortress.wa.gov/ecy/waterresources/map/WaterResourcesExplorer.aspx>
- Washington State Department of Ecology water well logs in the vicinity of the subject production well. <https://fortress.wa.gov/ecy/waterresources/map/WCLSWebMap/default.aspx>

A field visit was conducted on April 16, 2015 by Jill Van Hulle and Linton Wildrick, L.Hg., of PGG, with Chip Heinz of NW Trek. The tour included a review of the wells, primary water-based exhibits, and general facility grounds.

Project Description

The intent of this application is to secure a new water right permit for NW Trek's ongoing water use at their Pierce County facility.

Most of the current withdrawals for the park are authorized by groundwater certificate G2-21966, which was issued for 9.8 acre-feet per year. While the original report of examination (ROE) describes uses that are mostly consistent with today's uses – domestic supply, drinking fountains, offices, it appears that not enough water was allocated for some of the uses, specifically the component of water related to maintenance of the aquatic mammal exhibits.

It is estimated that the pools used by the beaver and otters contain about 30,000 gallons. This water is flushed on a weekly basis. The flow from the tanks forms a small water feature that flows through other exhibits before being discharged to Horseshoe Lake. In addition to the complete flushes, the filter systems in the tanks are back-flushed on a daily basis, resulting in additional discharge to the groundwater system via a septic-type system that discharges to the groundwater system.

As a result of the high water use in this exhibit Northwest Trek has been exceeding the annual cap on its water right certificate. Northwest Trek has been undergoing water system planning associated with the permitting of some new park features and wishes to correct their water right deficit in order to move forward with other planning components.

Site Description

NW Trek is an environmental education center dedicated to the study of northwest wildlife. The facility includes over 725 acres of trails and other publically accessible outdoor areas where animals are exhibited. The property is mostly forested and largely undeveloped.

The facility is situated in the Nisqually Watershed (Water Resource Area 11), near the town of Eatonville, in Pierce County, Washington, on State Route 161, and south of Clear Lake in the Ohop Valley. The Public Land Survey location is Township 17 North, Range 4 East, W.M., including portions of Sections 26, 27, 34, and 35.

Water Rights Appurtenant to the Place of Use

The applicant holds groundwater certificate G2-21966, which was issued for 9.8 acre-feet per year and 20 gpm. The right was issued for community domestic supply, commercial use and fire protection. Notes in the file also state water was to also be used to maintain water levels in wildlife ponds. This right is appurtenant to Well 1, which was in place when the park opened in 1975. Well 1 was 293 feet deep and supplied the park until 1983, when a new well (Well 2) was drilled and equipped to produce 100 gpm.

Well 2, which is also 293 feet deep, is currently the only well being used for NW Trek's operations. Because Well 2 is located only about 100 feet from Well 1 and is situated in the same ¼-¼ section as specified by the water right, the applicant has filed a *Showing of Compliance with RCW 90.44.100*, to formally reflect the change in source.

Topography

Northwest Trek is located in an area of relatively gentle, rolling topography, with occasional narrow, shallow canyons; the broader, shallow valley of Ohop Creek; and small closed depressions containing

glacial kettle lakes. An isolated, elongated hill on the east side of Northwest Trek's property is a glacial drumlin.

Surface Water

Generally, surface runoff in the area drains locally to the nearest valley, particularly to Ohop Creek, and regionally southwestward toward the Nisqually River, to which Ohop Creek is a tributary.

The nearest surface-water feature to Northwest Trek's wells is Horseshoe Lake, located in the central portion of Northwest Trek's property. Horseshoe Lake is wholly contained on the property and is a glacial kettle lake with no inlet or outlet. According to Rongey/Associates (2004), Horseshoe Lake fluctuates seasonally by approximately 12 feet. A much smaller kettle lake on the property, called Pot Hole Lake, lies about 1,500 feet north of Horseshoe Lake.

Ohop Creek borders the eastern side of the property and Ohop Lake borders the southern side. The Lake has not outlet structure and appears to be a naturally dammed reach of Ohop Creek. Ohop Creek is an underfit stream that occupies a former meltwater channel formed by a much larger meltwater stream that emanated from the Vashon glacier as it receded northward.

Geology

The regional geology of the area was mapped by Walters and Kimmel (1968), and the local geology at Northwest Trek was interpreted by Rongey/Associates (2004).

The most common surficial geologic unit is a thin layer of Vashon glacial till (Qvt) that covers the uplands. Vashon till was deposited and compacted under the Vashon glacier and consists of a dense, unstratified mixture of sand and gravel, with silt and clay binder, but locally contains cobbles and boulders, as occurs at Northwest Trek.

In the lower lying areas, around Horseshoe Lake and Pot Hole Lake, and along Ohop Creek/Ohop Lake, the till appears to have been eroded away by a glacial meltwater stream. Where Northwest Trek's property now lies, the stream then eroded a narrow channel down into the upper Mashel Formation of Miocene Age. Later, the stream deposited channel fill of Vashon recessional outwash (Qvr), an uncompacted coarse-grained sand and gravel. The shape of Horseshoe Lake indicates that it occupies an abandoned meander bend of former stream. Vashon Advance outwash (unit Qva) may occur on the east side of Horseshoe Lake, beneath the glacial drumlin (elongated, rounded small hill) that lies between the lake and Ohop Creek.

Unit Qvr around the kettle lakes at Northwest Trek is underlain by the Miocene-age Mashel Formation (unit Tm) and is overlain by recent lakebed deposits. The lakebeds of Horseshoe Lake and Pot Hole Lake consist of recent lacustrine sediments (unit Ql), including interbedded clay, silt, and peat. The Mashel Formation is a regionally extensive, sedimentary unit that consists of layered clay, silt, and sand, with minor gravel, in the upper part, and poorly cemented sand and gravel in the lower part. This unit is tapped by Northwest Trek's wells 1 and 2.

Hydrogeology

The local aquifers are contained within geologic units Qvr and Tm, and possibly within a localized pocket of Qva beneath the drumlin at Northwest Trek. All the aquifers are recharged by local precipitation via infiltration into the soils formed on the sandy, gravelly unit Qvt and the coarser units Qvr and Qva. The

remainder of rainfall and snowmelt runs overland to the closed depressions, such as Horseshoe Lake, and to stream channels.

Groundwater/Surface Water Interactions

Groundwater in the area discharges as baseflow from springs and seepage into creeks and seeps into the area lakes when the water table is high during the winter and spring.

Rongey/Associates (R/A) conducted test drilling, piezometer measurements, and water-quality analyses for Northwest Trek and interpreted the findings to indicate that Horseshoe Lake (and by inference, Pot Hole Lake) is hydraulically connected to the underlying localized Qvr aquifer. During the wetter seasons when the local water table is higher than the lake level, groundwater seeps into the lake, together with local storm runoff and flow from perennial springs and a creek, within the closed drainage basin of about 380 acres. Conversely, during the drier seasons when the local water table drops lower than the lake level, surface water seeps slowly out of the lake through the relatively low permeability lakebed into the underlying aquifer. Through this cycle, the lake fluctuates about 12 feet each year.

The lake levels and hydraulically connected local water table beneath Northwest Trek are approximately 150 feet in elevation above the regional water table within unit Tm and approximately 200 feet about the level of Ohop Creek and Ohop Lake (Rongey, 2004,). The lake level varies between approximate elevations 720 to 730 feet, the regional water is at approximate elevation 575 feet, and Ohop Lake/Ohop Creek is at approximate elevation 525 feet. These elevation differences define the local hydraulic gradient and indicate that groundwater in the localized Qvr aquifer leaks downward into the Tm aquifer and then flows south and southeasterly toward Ohop Lake.

The baseflows of Ohop Lake and Ohop Creek are provided by groundwater discharge. This is the fate of nearly all the groundwater in the watershed, save that which percolates deeply into underlying bedrock beneath unit Tm - likely a very small portion of the total groundwater flow. In other words, the creek and lake baseflows are fed along this reach by groundwater discharge from the surrounding higher ground. The same process occurs up and down the Ohop Valley.

Potential Impairment to Surface Water

Stream capture by wells occurs when groundwater is pumped from an aquifer in hydraulic continuity with surface water, either directly or indirectly through intervening geologic unit. In this situation, the source of water pumped from a well is either water drawn into the aquifer from a surface water body, or groundwater that would have discharged to the surface-water body, or water from aquifer storage.

Wells completed in the Qvr or Tu aquifer will likely capture groundwater that would eventually discharge to Ohop Lake or to Ohop Creek. However, there is lag time from when pumping an aquifer begins to when effects are felt in a surface water body. The lag time is dependent on the depth and pumping rate of the well, site specific hydrogeology, and distance from the well to the surface water body.

The groundwater pumped into the aquatic mammal exhibits at Northwest Trek circulates through a non-consumptive loop. Well water is used to fill the tanks in the exhibits and then overflows to the small creek channel and runs into Horseshoe Lake, where it percolates back into the Qvr aquifer. Because this water is not consumptively used it is water-budget neutral. Therefore, there should not be a reduction in discharge to surface water bodies as a result of this authorization.

Regulatory Setting

This project is located in the Nisqually River drainage, WRIA 11, so the issuance of new water-right permits must be consistent with the intent of the instream-flow rules for this watershed (WAC 173-511). The Nisqually rule states that: *"future groundwater applications will not be affected by this chapter, unless it is verified that such withdrawal would have a 'significant impact' upon the surface waters, contrary to the intent and objectives of the chapter."*

The intent of the State's instream flow program is embodied in WAC 173-500-020, specifically in subpart (4) which describes the goal to: *"establish flows on perennial streams of the state in amounts necessary to provide for preservation of wildlife, fish, scenic, aesthetic, and other environmental values, and navigational values."*

From a water-budget standpoint, NW Trek's activities are not expected to impair flow in surface-water bodies. Since NW Trek's use of the water under this authorization is largely water-budget neutral, the issuance of a permit will not violate the intent of WAC 173-511 regarding surface water-sources.

Potential Impairment to Groundwater Users

The production well (Well 2) is completed in a gravel layer within unit Tm which occurs between 265 and 291 feet. The well is perforated to take advantage of the water-bearing material.

The well was test-pumped at a rate of 41 gpm, with total drawdown of 1.1 foot below the static water level of 217 feet. This indicates a specific capacity of 36 gpm/ft. Water levels were monitored in the original well and this newer production well throughout the test and for a one-hour recovery period afterwards. Based on these observations, the aquifer transmissivity was estimated to be approximately 5,300 to 6,700 ft²/d (40,000 and 50,000 gpd/ft; Robinson & Noble, Inc. 1983). Robinson & Noble indicated that the well could be sustainably pumped at up to at least 100 gpm, which is what it has been equipped to do.

Based on estimated aquifer properties, the drawdown caused by this well is estimated to be undetectable a short distance from the pumping well. Because there are no other wells located close to the subject well, the slight change in water levels associated with its operation will be undetectable to other water users.

Quantities for Permit

Northwest Trek's water use is currently measured by a single meter that measures all on-site water uses. As described in their 2014 Water System Plan, water is used for a variety of purposes, including the domestic needs of staff and visitors, maintenance of grounds (such as irrigation and cleaning), and direct use by the animals. Additionally, water is pumped into the beaver and otter pools at the aquatic mammal exhibit.

NW Trek reports that on average they use about 12.57 acre-feet per year. Of that approximately 4.7 acre-feet is used by the facility for its general needs – which include domestic supply of staff and visitors, the café/restaurant, cleaning and limited irrigation. The remaining 7.87 acre-feet is used in a single exhibit – the aquatic mammal exhibit.

Table 2, shows the approximate distribution of the water used at NW Trek.

Table 2. Water Use Summary for Northwest Trek

General Facility Use	Gallons/year	Ac-ft/year
<i>Visitor usage</i>	900,000	2.76
<i>Staff</i>	375,000	1.15
<i>Maintenance</i>	60,000	0.18
<i>Animal (general)</i>	48,000	0.15
<i>Irrigation</i>	150,000	0.46
<i>Sub-total</i>	<i>1,533,000</i>	<i>4.70</i>
<i>Aquatic Mammals</i>		
<i>Back flushes</i>	626,000	1.92
<i>Full changes</i>	1,937,000	5.95
<i>Sub-total</i>	2,563,000	7.87
<i>Total</i>		12.57

As previously stated, more water is being used in the aquatic mammal exhibit than originally planned for. Northwest Trek has experimented with different water saving methods but determined that the animals do better with more regular water changes. It is estimated that the pools used by the beaver and otters contain about 30,000 gallons. This water is flushed on a weekly basis, the flow from the tanks forms a small water feature that flows through other exhibits before being discharged to Horseshoe Lake. In addition to the complete flushes, the filter systems in the tanks are back-flushed on a daily basis, resulting in additional discharge to the groundwater system via a septic-type system that discharges to the groundwater system. Well there may be some evaporation that occurs during tank flushes, the tanks (and resulting) stream are located in a fairly shaded area and we suggest that most of the tank water – an estimated 4.79 acre-feet is reaching the lake.

Because NW Trek already holds a water right for 9.8 acre-feet per year, we recommend the issuance of a second permit for an additional 3.0 acre-feet per year, for a total of 12.8 acre-feet per year. This quantity reflect the gap between total water produced from the well, and the existing water right. In practice of the nearly 13 acre-feet that is produced from the well, nearly 8 is simply pass-through water which is being discharged back into the groundwater system.

Priority Processing

RCW 90.03.265(2) provides that, in pursuing a cost-reimbursement project, the Department must determine the source of water from which the water is proposed to be diverted or withdrawn, including the boundaries of the area that delimit the source. The Department must determine if any other water-right applications are pending from the same source. A water source may include surface water only, groundwater only, or surface and groundwater together, if the Department finds they are hydraulically connected. The Department shall consider technical information submitted by the applicant in making its determinations under this subsection.

RCW 90.03.265(1)(b) provides that the requirement for an applicant to pay for the processing of senior applications does not apply in situations where the water allocated to one party will not diminish the water available to a senior applicant from the same source. Because there are no other pending groundwater applicants that will be affected by the requested allocation, this application can be processed prior to other pending applications.

Four Statutory Tests

This Report of Examination (ROE) evaluates the application based on the information presented above. To approve the application, Ecology must issue written findings of fact and determine that each of the following four requirements of RCW 90.03.290 has been satisfied:

1. Water is available. *Well 2 is productive and has been in continuous use for over 30 years without problems.*
2. No impairment to other right holders or instream flows will occur. *Existing water rights including surface waters subject to instream flow rules (WAC 173-511) are not anticipated to be impaired by the proposed withdrawals. This additional increment of water is being re-induced into the groundwater system where it recharges the aquifer system.*
3. Beneficial use. *Use of the water by NW Trek for industrial purposes is considered a beneficial use, (RCW 90.14.031).*
4. Water Resources Act of 1971. *The issuance of this permit is consistent with RCW 90.54 (Water Resources Act of 1971), which requires allocation of water in a manner that preserves instream resources, protects the quality of water, and provides adequate and safe supplies of the state and its citizens. The use of the water by the water by the applicant is not detrimental to the public welfare and help meet NW Trek's educational goals.*

Northwest Trek participates in a number of habitat-restoration projects that include providing assistance to other entities with planning, consulting, and mapping, to hands-on wetland enhancement.

CONCLUSIONS

The conclusions based on the above investigation are as follow:

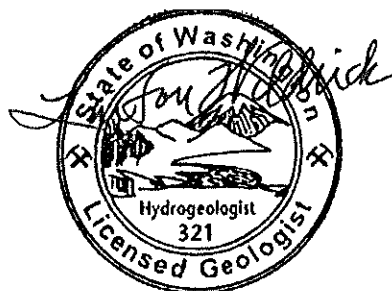
1. The proposed appropriation for industrial\commercial supply is a beneficial use of water,
2. The requested quantity of 80 gpm (non-additive) and 3 af/yr is available for appropriation,
3. The appropriation will not impair senior water rights, and
4. The appropriation will not be detrimental to the public interest.

RECOMMENDATION

Based on the information presented above, the author recommends that the request to appropriate 3 acre-feet per year and 80 gpm be approved in the amounts described, limited, and provisioned on page 1 through 3 of this report.

Report by:

Jill E Van Hulle and Linton Wildrick



LINTON L. WILDRICK

Jill Van Hulle and Linton Wildrick, Pacific Groundwater Group

10/15/2015
Date

Reviewed by:

Tammy Hall

Tammy Hall, Water Resources Program

10/15/2015
Date

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